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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,349	03/12/2004	Xiangrong Liu	030807-144	5616
21839 7590 02/13/2007 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			EXAMINER WEINSTEIN, STEVEN L	
			ART UNIT 1761	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	02/13/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/798,349

Applicant(s)

LIU ET AL.

Examiner

Steven L. Weinstein

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/28/04, 10/05/05, 11/17/06.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Art Unit: 1761

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hankinson et al (2003/0198716), in view of Martin et al (5,912,034), or vice versa, i.e., Martin et al in view of Hankinson et al, further in view of Shenouda et al (4,814,193), Alderton (3,328,178), Creston Valley Foods (GB 1510883), and Allen (1,098,006), further in view of Martin et al (6,500,476), Beelman et al (5,919,507), Beelman et al (2003/0170354), Sapers et al (4,814,192), Farrier et al (4,011,348), and Reyes (6,159,512).

In regard to claim 1, Hankinson et al discloses it was known to treat produce to reduce microbial load by contacting the produce with a highly acidic, pH adjusting agent wherein the contact is effective to reduce microbial concentration, and then contacting the produce with a composition that neutralizes the residual acidity, since residual acidity can result in damaged tissue. This is applicants' objective in employing a two step, produce contacting, process as well. That is, applicants employ a pH lowering composition as an antimicrobial, and a neutralizing composition so that the produce can achieve its natural pH level. See, in this regard, col. 2, para. 6 of Hankinson et al. Martin et al (5,912,034), Shenouda et al, Alderton, Creston Valley Foods (GB 1510883), and Allen (1,098,006) are relied on as further evidence of the conventionality of low acid treatment followed by a neutralization step. Claim 1 recites a particular range for the

Art Unit: 1761

high pH composition. Since the goal of both applicants and the prior art mentioned in Hankinson et al was to reduce microbial concentration, the particular pH range would have been a matter of routine determination. It is noted that a pH range of between 1.5 and 4.5 would fit the description of being highly acid. Similarly, the pH of the second, neutralizing composition would have also been an obvious matter of routine determination and an obvious function of the pH of the first composition and food product. Claim 1 also recites that the neutralizing, second composition comprises a chelating agent and an antioxidant. As disclosed, the second step is to neutralize the acid, first step, and to provide anti-browning agent(s) in the form of a chelating agent and an antioxidant. As evidenced by Hankinson et al, it was well established in the art to contact produce with antibrowning agents such as chelating agents such as disodium EDTA and ascorbic acid (an antioxidant). See, e.g., col. 5, para. 5 of Hankinson et al in this regard. To therefore modify the prior art practice as discussed in Hankinson et al and provide the neutralizing composition with a chelating agent and antioxidant for its art recognized and applicants' intended function would therefore have been obvious. Martin et al ('476), Beelman et al ('507), and Beelman et al (2003/0170354), Sapers et al, Farrier et al and Reyes are relied on as further evidence of the wide use of chelating agents and antioxidants in the art of preserving produce. All of the dependent claims and claims 19-31 have been reviewed and are rejected over the art taken as a whole. For example, in regard to claim 2, the art taken as a whole, including Hankinson et al discloses produce including mushrooms. In regard to claim 3, the produce can be sliced or whole (Hankinson et al). In regard to claim 4, the produce is rinsed (Hankinson et al).

Art Unit: 1761

In regard to claims 5-8, which recite a pH range and acidulant, Martin et al, for example discloses both pH and acidulant, and it would have been obvious to modify Hankinson et al and employ the expedients for their art recognized and applicants intended function. In regard to claim 9, Hankinson et al discloses salt and its amount would have been a routine determination. Similarly, the remainder of the claims recite either concentrations or other process variables such as times and pH. Since the art taken as a whole teach both applicants problem and solution, the particular process variables recited, if not fully disclosed in the art taken as a whole would have been routinely determinable.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.


Claims 1,4-11,14,14,17-21,24,25, and 27-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al (5,912,034).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven L. Weinstein whose telephone number is 571-272-1410. The examiner can normally be reached on Monday-Friday 7:00 A.M.-2:30 P.M..

Art Unit: 1761

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


STEVE WEINSTEIN
PRIMARY EXAMINER 1761
2/9/07